

REMARKS

Claims 1-30 are pending in the present application. With this preliminary amendment, claims 1, 11, and 21 have been amended; claims 2-10, 12-20, and 22-30 have been canceled. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims 1-30 under 35 U.S.C. § 103(a) as being unpatentable over *Tamayo et al.*, Enterprise Web Mining System and Method, Patent No. 6,836,773, dated December 28, 2004 (hereinafter "*Tamayo*"). This rejection, as it might be applied to the claims as amended, is respectfully traversed.

Applicants have canceled claims 2-10, 12-20, and 22-30. The remaining claims are claims 1, 11, and 21. Applicants' claims 1, 11, and 21 recite similar features. Claim 1 is representative of claims 11 and 21. Support for the amendments is indicated after each element of amended claim 1. Amended claim 1 recites:

A method, in a computing device, for identifying cross-selling opportunities for a bank, comprising:

said computing device including a controller, a network interface, a profitability analysis device, a profit level categorization device, a data mining device, a cross-selling opportunities recognition device, and a storage device; (Support can be found in the specification on page 32, lines 11-23.)

said controller, said network interface, said profitability analysis device, said profit level categorization device, said data mining device, said cross-selling opportunities recognition device, and said storage device coupled together using a control/data signal bus; (Support can be found in the specification on page 32, lines 11-23.)

performing, using said computing device, association analysis for only said bank using only said bank's plurality of bank products and only said bank's plurality of existing banking customers; (Support can be found in the specification on page 2, line 24, through page 3, line 8; page 6, lines 3-23; and page 28, lines 15-18.)

said association analysis not performed for any retail business using any retail customers or retail data related to any type of retail services or retail store; (Support can be found in the specification on page 2, line 24, through page 3, line 8; page 6, lines 3-23; and page 28, lines 15-18.)

said association analysis including:

receiving, by said controller via said network interface, a request for cross-selling opportunities

identification; (Support can be found in the specification on page 32, lines 24-29.)

said controller initiating retrieval, for each one of said plurality of existing banking customers from a bank's database, of product information about said plurality of bank products, said initiating responsive to said receipt of said request; (Support can be found in the specification on page 32, line 29, through page 33, line 1.)

said bank losing money on particular ones of said plurality of products when said particular ones of said plurality of products are purchased by particular ones of said plurality of banking customers; (Support can be found in the specification on page 3, lines 6-8.)

temporarily storing said product information in said storage device; (Support can be found in the specification on page 33, lines 1-2.)

instructing, by said controller, said profitability analysis device to operate on said stored product information; (Support can be found in the specification on page 33, lines 3-5.)

analyzing, by said profitability analysis device, said stored product information to identify strategic ones of said plurality of products to form preferred products, said preferred products being only said strategic ones of said plurality of products, said preferred products being ones of said plurality of products that are purchased by ones of said plurality of banking customers that purchase at least a minimum amount of said plurality of products; (Support can be found in the specification on page 30, lines 4-7; and page 33, lines 6-8.)

calculating, by said profitability analysis device, a profit for each one of said preferred products, and not calculating profit for ones of said plurality of products not identified as being one of said preferred products; (Support can be found in the specification on page 30, lines 8-10; and page 33, lines 6-8.)

categorizing, based on said profit that was calculated for each one of said preferred products, each one of said preferred products into one of three levels, which are based on said bank's situation; (Support can be found in the specification on page 30, lines 8-10.)

said three levels including a high level of profitability, a medium level of profitability, and a low level of profitability; (Support can be found in the specification on page 33, lines 10-13.)

said low level of profitability indicating either low profitability or negative profitability when each one of said preferred products that is categorized into said low level of profitability is purchased; (Support can be found in the specification on page 29, lines 22-23.)

each one of said preferred products having an assigned original product code; (Support can be found in the specification on page 30, lines 10-14.)

for each one of said preferred products: transforming said assigned original product code by

embedding one of said three levels into said assigned original product code to form a new product code, said embedded one of said three levels being a level into which each one of said preferred products was categorized; (Support can be found in the specification on page 30, lines 10-14.)

transforming said original product code into said new product code by concatenating said assigned original product code to form said new product code; (Support can be found in the specification on page 30, lines 10-14.)

storing each one of said preferred products with said new product code that is associated with said one of said preferred products to form modified preferred products; (Support can be found in the specification on page 33, lines 13-15.)

processing said modified preferred products to identify associations among said modified preferred products, said processing including performing data mining on said modified preferred products to generate a plurality of association rules based on past behavior of said plurality of banking customers; (Support can be found in the specification on page 33, lines 13-15.)

a particular one of said plurality of association rules associating a Visa Gold credit card with a housing loan, said particular one of said plurality of association rules including a support of 0.22, a confidence of 10.7, and a lift of 13.3; (Support can be found in the specification on page 31, lines 9-21.)

said particular one of said plurality of association rules including, embedded within said particular one of said plurality of association rules, an identification that a Visa Gold credit card is high profitability and an indication that a housing loan is high profitability; (Support can be found in the specification on page 31, lines 9-21.)

wherein said particular one of said plurality of associations rules is: Visa Gold with high profitability associated with house loan with high profitability with support of 0.22, 10.7 as confidence, and 13.3 as lift; (Support can be found in the specification on page 31, lines 9-21.)

analyzing, by said cross-selling opportunities recognition device, said plurality of association rules to identify a first subset of said plurality of association rules that indicate said high level of profitability, said first subset of said plurality of association rules including said particular one of said plurality of association rules; (Support can be found in the specification on page 30, lines 17-21.)

using said first subset of said plurality of association rules to identify first ones of said plurality of bank customers to which to target marketing, a purchase of one of said preferred products by one of said first ones of said plurality of bank customers resulting in said high level of profitability occurring; (Support can be found in the specification on page 30, lines 17-21.)

generating one or more marketing strategies based on the first subset of said plurality of association rules; (Support can be found in the specification on page 30, lines 14-16.)

cross-selling to said first ones of said plurality of bank customers by marketing to said first ones of said plurality of bank customers; (Support can be found in the specification on page 30, lines 19-21.)

analyzing, by said cross-selling opportunities recognition device, said plurality of association rules to identify a second subset of said plurality of association rules that indicate said low level of profitability; (Support can be found in the specification on page 30, lines 23-25.)

using said second subset of said plurality of association rules to identify second ones of said plurality of bank customers to avoid, marketing not targeted to said second ones of said plurality of bank customers, a purchase of one of said preferred products by one of said second ones of said plurality of bank customers resulting in said low level of profitability occurring; (Support can be found in the specification on page 30, lines 21-23.)

excluding, from a next marketing campaign, said second ones of said plurality of bank customers; and (Support can be found in the specification on page 30, lines 23-25.)

wherein said first ones of said plurality of bank customers are good targets for cross-selling and said second ones of said plurality of bank customers are avoided.

Tamayo teaches obtaining product recommendations using association rules. These association rules return recommendations based on shopping cart history or corporate records that are built in advance. Confidence measures for each possible recommended product can be complemented with weights derived from the level of profit of each product.

Applicants' claims are limited to a bank, bank customers, and bank products. Applicants' claims describe existing bank customers.

Tamayo does not teach not calculating profit for products that are not preferred products. *Tamayo* does not render Applicants' claims obvious because *Tamayo* does not teach: transforming an original product code into a new product code by concatenating the assigned original product code to form the new product code; storing each preferred product with the new product code; identifying associations among modified preferred products; or a particular one of the association rules associating a Visa Gold credit card with a housing loan.

Tamayo is directed to selling more to a customer when that customer is below a threshold. See *Tamayo*, column 28, lines 59-64. *Tamayo* does not teach marketing that is not targeted to the second bank customers, or excluding the second bank customers from a next marketing campaign.

Because *Tamayo* does not teach or suggest the features of Applicants' claims, *Tamayo* does not render Applicants' claims 1, 11, and 21 obvious. Therefore, the rejection of claims 1, 11, and 21 under 35 U.S.C. § 103(a) has been overcome.

Applicants have amended claims 1, 11, and 21 and canceled claims 2-10, 12-20, and 22-30 from further consideration in this application. Applicants are not conceding in this application that those claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the allowable subject matter noted by the examiner. Applicants respectfully reserve the right to pursue these and other claims in one or more continuations and/or divisional patent applications.

II. Conclusion

It is respectfully urged that the subject application is patentable over *Tamayo* and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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